

REMARKS

Claims 1-2 and 6-27 are pending in the application, all of which stand rejected. In this reply, the Applicants have amended Claims 1, 20, 25, and 26. Claims 1 and 25 are amended to specify the type of polymer compounds used in the claimed gel composition. Support for this amendment can be found, for example, on page 7, lines 8-9 or the Specification. Claims 20 and 26 are amended to specify the gels comprising a polymer and alcohols, ethers or combinations thereof. Support for this amendment can be found, for example, in the original claims. Upon the entry of these amendments, Claims 1-2 and 6-27 are pending in this patent application. Appendix A is a marked-up copy showing all amendments, and Appendix B is a clean copy showing all pending claims. The Applicants respectfully submit that no new matter has been introduced.

RESPONSE TO REJECTION UNDER 35 U.S.C. § 103

Claims 1-2 and 6-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Takiguchi et al.*, U.S. Patent No. 4,748,199 ("*Takiguchi*") or *Diehl et al.*, U.S. Patent No. 5,399,627 ("*Diehl*") each taken alone and in the alternative. In making the rejection, the Examiner states the following:

Claims 1 and 6-27 are rejected under 35 U.S.C. §103(a) as being unpatentable over *Takiguchi et al.* or *Diehl et al.*

The rejection as set forth under 35 U.S.C. §193 in Paper No. 12 is deemed proper and is herein repeated.

Applicants' newly amended claims as well as the remarks filed in support thereof have been fully considered but have been deemed to be not persuasive.

Applicants argue that the *Takiguchi* patent fails to teach the incorporation of a triblock, star, radial or multi-block polymer wherein the structures of these polymers are illustrated in the instant application. This is not persuasive. The *Takiguchi* patent is seen to call for styrene butadiene polymers and expressly sets forth the coupling of such polymers which would result in a star shape polymer. Furthermore, the resins as disclosed in *Takiguchi et al.* are seen to be generic to block polymers. The polymers as shown in *Takiguchi* render obvious Applicants' instantly claimed block polymers given that there remain no limitations on the block length or structure of the blocks. The generic disclosure of the suitable resins within *Takiguchi* render obvious the broadly claimed block polymers.

Applicants then argue that the *Diehl* patent teaches adhesive compositions which incorporate the oils which are intended to be excluded from the instant invention. Applicants further argue that the gel composition as claimed does not include a tackifying resin. This is not persuasive. The fact that a tackifying resin as shown in *Diehl* does not render the instantly claimed invention patentable. There is nothing in the claims or specification which would exclude a tackifying resin. Furthermore.

it is seen that the mineral oil as shown in *Diehl* are optional ingredients and added in such an amount so as to render the composition "substantially free of mineral oils." As such, the claims are not patentable.

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The Applicants have reviewed the above references and respectfully disagree that the above references, singularly or in combination, render the claimed invention obvious. The Applicants' reasons are stated as follows.

APPLICABLE LAW

To reject claims of an application under 35 U.S.C. §103(a), an examiner has the burden of establishing an unrebutted *prima facie* case of obviousness. See *In re Deuel*, 51 F.3d 1552, 1557, 34 U.S.P.Q.2d 1210, 1214 (Fed. Cir. 1995). In the absence of a proper *prima facie* case of obviousness, an applicant who complies with the other statutory requirements is entitled to a patent. See *In re Oetiker*, 977 F.2d 1443, 1445, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992). Obviousness cannot be established by modifying or combining the teaching of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the modification or combination. See *In re Geiger*, 815 F.2d 686, 688, 2 U.S.P.Q.2d 1276, 1278 (Fed. Cir. 1987). Furthermore, the motivation to modify or combine the teachings of the prior art must be identified in making and sustaining an obviousness rejection. See *In re Rouffet*, 149 F.3d 1350, 47 U.S.P.Q.2d 1453 (Fed. Cir. 1998) (reversing an obviousness rejection for lack of identification by the Examiner and the Board of motivation to combine prior art references). Where cited references, alone or in combination, do not suggest or teach the claimed invention, no *prima facie* case of obviousness has been established and such obviousness rejection is improper. *In re Fine*, 5 U.S.P.Q.2d 1596, 1599 (Fed. Cir. 1988); *In re Evanega*, 829 F.2d 1110, 4 U.S.P.Q.2d 1249 (Fed. Cir. 1987) (reversing an obviousness rejection because the prior art did not teach a claimed limitation). In other words, the absence of a suggestion to combine in the prior art references is dispositive of an obviousness determination. See *Gambro Lundia AB v. Baxter Healthcare Corp.*, 110 F.3d 1573, 1578-79, 42 U.S.P.Q.2d 1378, 1383 (Fed. Cir. 1997).

According to MPEP §706.02(j), to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references

themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See also *MPEP* §2143 (8th ed. 2001). Moreover, if a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984).

APPLICATION OF THE LAW

Response to Rejection of Claims 1-2, 6-19 and 25

The Applicants respectfully submit that *Takiguchi* fails to disclose each and every element recited in independent Claims 1 and 25. Claims 1 and 25 recite a gel composition comprising a polymer compound selected from the group consisting of triblock copolymers, star polymers, radial polymers, multiblock copolymers, and combinations thereof. To the contrary, *Takiguchi* is directed to a low fuel consumption tire composition. The tire composition comprises a vulcanizable rubber composition obtained by mixing carbon black, a low temperature plasticizing ester, a rubber component, and/or a naphthenic or paraffinic softener. See column 3, lines 25-40. The rubber component is a diene rubber that can be a butadiene rubber (BR) or styrene butadiene rubber (SBR). See column 3, lines 33-36. **Styrene butadiene rubber is a copolymer having a random structure.** However, **the polymer disclosed in *Takiguchi* is not a block copolymer with at least one rigid block and one elastic block.** Rather it is a random block copolymer in which the styrene comonomers are randomly distributed in the polymeric chains. See Ferdinand Rodriguez, *Principles of Polymer Systems*, 394 (2d 1982) (included herewith as Appendix C). Because the comonomers are randomly distributed, there are neither rigid blocks nor elastic blocks in SBR rubber. In fact, a block copolymer with a rigid block and an elastomeric block would not be useful as a rubber component. Thus, because *Takiguchi* does not teach, suggest, or disclose this element of the independent Claims 1 and 25, *Takiguchi* fails to establish a *prima facie* case of obviousness against

Claims 1 and 25 and claims dependent thereon. The Applicants respectfully request the rejection of Claims 1-2, and 6-19, and 25 under 35 U.S.C. §103 based on *Takiguchi* be withdrawn.

With respect to the rejection based on *Diehl*, the Applicants note that this reference discloses a pressure sensitive adhesive composition comprising, among other things, a radial block copolymer, and a tackifying resin. *See column 2, lines 34-37*. The tackifying resins may include hydrocarbon resins, synthetic polyterpenes, rosin esters and natural terpenes which are semi-solid or solid at ambient temperatures but soften or become liquid at temperatures ranging from 70°C to 135°C. *See column 6, lines 43-50 [emphasis added]*.

The Applicants respectfully submit that *Diehl* does not disclose, teach, or suggest the esters of the claimed gel composition. However, the terms “resin” and “rosin” are used to indicate polymeric compounds. Thus, the “rosin esters” disclosed in *Diehl* are polymeric ester compounds. Such compounds do not fit the formulas recited in independent Claims 1 and 25. The Applicants submit that such compounds do not suggest the use of esters of the formulae recited in independent Claims 1 and 25 because polymeric compounds have properties that are vastly different from molecular species with same functional groups. Thus, *Diehl* fails to teach, suggest or disclose each and every limitation of independent Claims 1 and 25.

Moreover, *Diehl* fails to establish a *prima facie* case of obviousness because there is no motivation to modify the teaching of *Diehl* to arrive at the invention recited in Claims 1 and 25. As discussed above, polymer compounds are not interchangeable with their component monomer because polymer properties are vastly different from those of the monomer. Thus, replacing the polymeric ester compounds of *Diehl* with an ester of Claims 1 and 25 would render the prior art invention unsatisfactory for its intended purpose.

For each of the reasons discussed above, the Applicants respectfully submit that *Diehl* fails to establish a *prima facie* case of obviousness against the rejected claims. The Applicants respectfully request that the rejection of Claims 1-2 and 6-19, and 25 under 35 U.S.C. §103 based on *Diehl* be withdrawn.

Response to Rejection of Claims 20-23 and 26

The Applicants respectfully submit that *Takiguchi* and *Diehl*, individually or in combination, fail to disclose each and every element recited in independent Claims 20 and 26. Specifically,

Claims 20 and 26 recite a composition comprising an alcohol, an ether, and combinations thereof. Nothing in *Takiguchi* nor *Diehl* teaches, suggests, or otherwise discloses compositions comprising an alcohol or an ether. Moreover, there is no suggestion in either reference or in the general knowledge of the art that would motivate one skilled in the art to modify the references to arrive at the subject matter of claims 20 and 26. Thus, a *prima facie* case of obviousness has not been established against independent claims 20 and 26 and claims dependent thereon. Therefore, the Applicant respectfully request that the rejection of claims 20-23 and 26 under 35 U.S.C. §103 based on *Takiguchi* and *Diehl* be withdrawn.

Response to Rejection of Claims 24 and 27

The Applicants respectfully submit that *Takiguchi* and *Diehl*, individually or in combination, fail to disclose each and every element recited in independent Claims 24 and 27. Specifically, Claims 24 and 27 recite a polymer compound selected from the group consisting of alkyl galactomannan, polybutadiene, and combinations thereof. Nothing in *Takiguchi* nor *Diehl* teaches or suggests compositions comprising alkyl galactomannan, or polybutadiene. Alkyl galactomannan is a modified homosaccharide. Polybutadiene is a homopolymer. Thus, neither alkyl galactomannan nor polybutadiene belong to the same chemical class as the random styrene butadiene rubber disclosed in *Takiguchi* nor the block copolymers disclosed in *Diehl*. Moreover, there is no suggestion in either reference that would motivate one skilled in the art to modify the references to arrive at the subject matter of Claims 24 and 27. Thus, a *prima facie* case of obviousness has not been established against Claims 24 and 27. Therefore, the Applicant respectfully request that the rejection under 35 U.S.C. §103 based on *Takiguchi* and *Diehl* be withdrawn.

Unexpected Results

Again, the Applicants wish to point out some unexpected results obtained from the use of the claimed gel compositions. For example, Example 8 demonstrates that a sun screen lotion based on a gelled ester composition increases the waterproof efficacy of the sun screen lotion. Example 9 demonstrates that gelled esters are effective in retaining moisture in the skin, and its performance is comparable to petrolatum as an occlusive agent. Moreover, Example 10 shows that a gelled composition has significantly higher loading capacity as a suspension system. Specifically the

loading capacity of a gelled soybean oil is about 25 times more than that of a neat soybean oil. These results are not expected from the vantage point of a person of ordinary skill in the art. These unexpected results support a finding of nonobviousness of the claimed invention.

In sum, none of the cited references, individually or in combination, teaches, suggests, or discloses all limitations of the claimed invention. Moreover, unexpected results are obtained with the gel compositions made in accordance with embodiments of the invention. Therefore, all pending claims, i.e., Claims 1-2 and 6-27, are not rendered obvious by prior art and, thus, are patentable.

CONCLUSION

The Applicant has addressed all of the Examiner's rejections. In conjunction with the claim amendments and arguments above, the Applicant believes that the claims are now in condition for allowance and respectfully request that the Examiner grant such an action. If any questions or issues remain in the resolution of which the Examiner feels will be advanced by a conference with the Applicant's attorney, the Examiner is invited to contact the attorney at the number noted below.

No fees are due as a result of this Reply. The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Deposit Account No. 10-0447, reference 42133.9USPT(BAI).

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